

# Work Order ID 118408

\*118408\*

Page 1

October-14-14 3:02:04 PM

Item ID: D407-667-205

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Aft Crosstube - High 407

Stop \*NS2\*

Start Date: 10/14/14 Start Qty: 1.00 \*1\*

Required Date: 10/14/14 Req'd Qty: 1.00 \*1\*

Cust Item ID:

Reference: NCR - RLC

REWORK

Customer:

Approvals: Process Plan: U Date: Tooling: Date:

QC: Date: SPC (Y/N): Date:

PATENT		N/A	
P/N	D407-667-205	CHG	CHG008
DESC	Crosstube Aft High	STC	SH01-5
LOT	B116464	STC	SR01304NY
MODEL	Bell 407	STC	
TC APPROVAL # 09-89		MADE IN CANADA	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D407-667-245	Rev F/DEO

100 Document Control 0.00

\*100\*

DC Memo 0.00

Doc.Control -USB or Paperwork Photocopy bluefile and create labels as per PPP D407-667-205 CHG008

OCT 21 2014

DAS  
06  
9-89

230 Crosstubes 0.00

\*230\*

Crosstubes Memo 0.00

Crosstubes PULL FROM STK:  
1 X D407-667-205 B116464  
REWORK - POSITION OF OPER CENTER SUPPORTS - INSTALL AT 8.53"  
FROM CENTERLINE

N/A

DAS  
38  
9-89

DAS  
41  
9-89

14-10-20

240 QC5- Inspect part completeness to step on W/O 0.00

\*240\*

QC Memo 0.00

Quality Control \*\*\*RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURE FOR  
24HOURS AS PER DWG DEO\*\*\*

DAS  
38  
9-89

14-10-20

# Work Order ID 118408

October-14-14 3:02:04 PM

**\*118408\***

Page 2

Item ID: D407-667-205

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Aft Crosstube - High 407

Start Date: 10/14/14 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 10/14/14 Req'd Qty: 1.00

**\*1\***

Customer:

Reference: NCR - RLC

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Pick Kit	0.00			DAS 06 9-89				
<b>*250*</b>									
Packaging	Memo	0.00							
Packaging	ENSURE ORIGINAL KIT IS IN BOX			OCT 21 2014					
260	QC4- 100% Inspect kits for completeness	0.00			DAS 06 9-89				
<b>*260*</b>									
QC	Memo	0.00							
Quality Control				OCT 21 2014					
270	Packaging	0.00							
<b>*270*</b>									
Packaging	Memo	0.00			DAS 06 9-89				
Packaging	REPACKAGE PER PPP USING NEW B/N								
	Identify and in kanban rack								
	Location: <u>K6077</u>			OCT 21 2014					

**Work Order ID 118408****\*118408\***

Page 3

Item ID: D407-667-205

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Aft Crosstube - High 407

Stop **\*NS2\***

Start Date: 10/14/14 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 10/14/14 Req'd Qty: 1.00

**\*1\***

Customer:

Reference: NCR - RLC

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

280

QC21- Final Inspection - Work Order Release

0.00


**\*280\***

QC

Memo

0.00

Quality Control

14/10/22 WF  
14-10-22

# Picklist Print

October-14-14 3:02:04 PM

Page 1

Work Order ID: 118408

**\*118408\***

Parent Item: D407-667-205

**\*D407-667-205\***

Parent Item Name: Aft Crosstube - High 407

Start Date: 10/14/14

Required Date: 10/14/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:C 05.09.02 Add holes for compatibility with Bell SkidtubesKJ/JLM  
IPP Rev:D Added Magnobond,Rubber Cushion & Clamps 07-02-19  
JLM

\*\*\*\*CHANGE TO CHG 005 - IF USING D2894-1 B35578 OR GREATER\*\*\*\*

IPP Rev:E 08-05-22 add comment in seq. 6 and QC15 and QC5 DD verified  
by:EC

IPP Rev:F 08-06-12 add comment in seq. 24 DD verified by:EC

IPP Rev:G 08-08-19 revE as per dwg DD verified by:EC

IPP Rev H 09.01.06 ECN 08-562 EC verified by:DD IPP Rev:I

10.04.07 revise route seq. in bom DD verified by:JLM IPP Rev J 11.04.26

removed abrasion strip ecn 11-551 EC verified

by:DD

IPP REV:K

11.10.03 DEO D407-667-245-F-2 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D407-667-205		Manufactured	No				Each	8.0000		1		DAS 41 9-89	
<b>*D407-667-205*</b>									<b>**</b>			<b>14-10-20</b>	
Aft Crosstube - High 407													

Location

Loc Qty

Loc Code

bSKT01

2

116462

1

116465

FG

108701

1

108702

1

112864

1

112865

1

116459

1

116461

1

Item	QTY -245	PART NUMBER	DESCRIPTION
1	X	D407-667-245	CROSSTUBE ASSEMBLY (407 HIGH AFT)
2	1	D6011-115	CROSSTUBE
3	2	D2856-400-773	ABRASION STRIP
4	2	D2873-043	NUT PLATE
5	2	D2873-045	NUT PLATE
6	1	D2894-1	SUPPORT
7	2	D3190-1	CHAFING SHIELD
8	2	D3595-063-430	RUBBER CUSHION
9	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
10	4	MS21920-22	CLAMP
11	2	MS21920-25	CLAMP (OR MS21920-24)
12	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947- 100, TYPE II, CLASS 2 ADHESIVE)

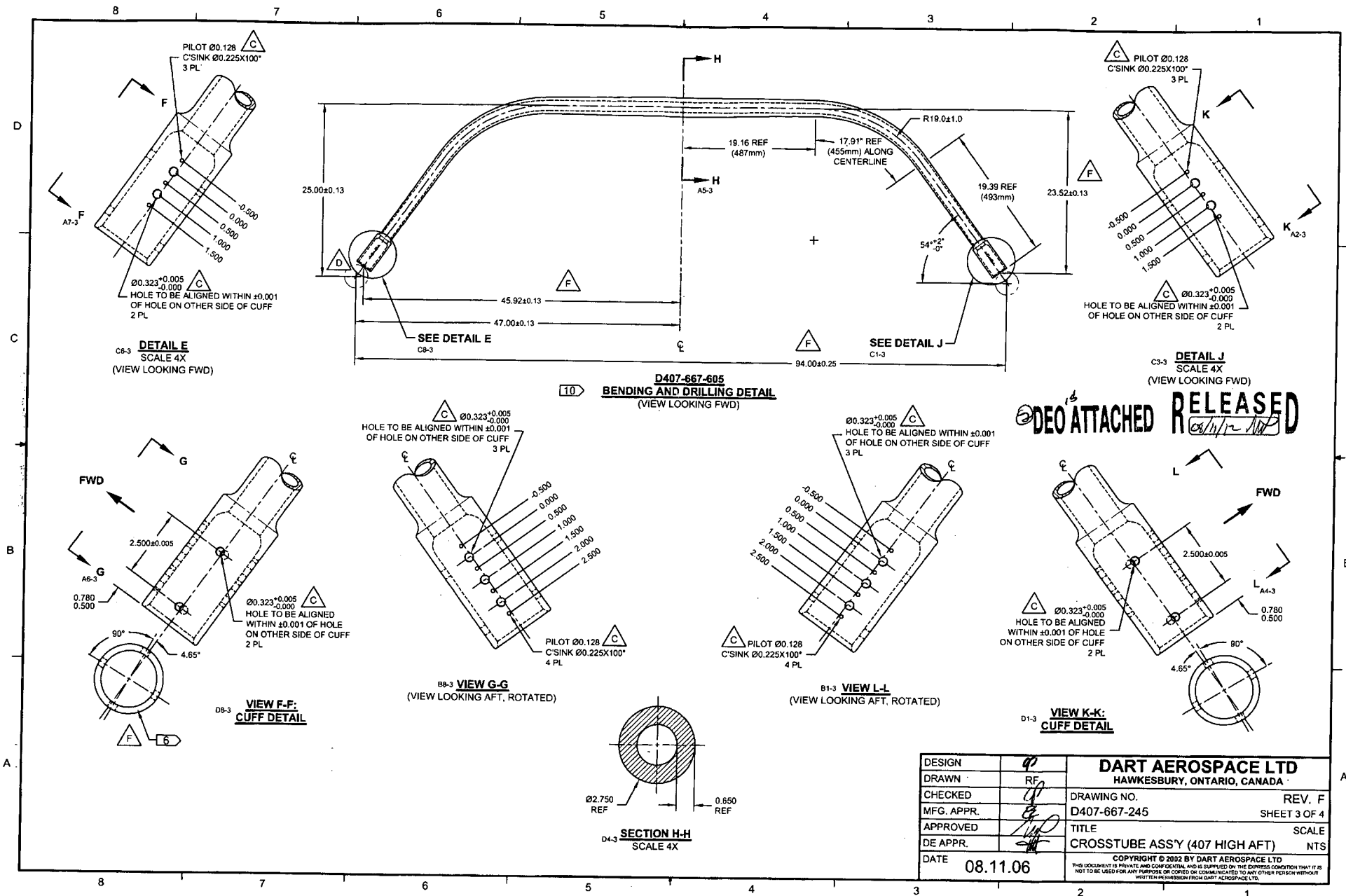
#### GENERAL NOTES:

- MATERIAL: MANUFACTURED FROM D6011-115  
FINISHED LENGTH = 112.91±0.020
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-245" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- WEIGHT: 27.7 lbs
- PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- INSTALL MS21920-25 CLAMPS WITH D3595-063-430 RUBBER CUSHIONS TO SECURE D2894-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.  
**NOTE:** MS21920-24 CLAMPS CAN BE USED TO ACCOMMODATE VARYING DIAMETERS. ENSURE THERE IS A MINIMUM OF 1.5 THREADS IN SAFETY ON THE NUTS.
- EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, PER QSI 035.
- INSTALL D3190-1 CHAFING SHIELDS SO THAT OVERLAP IS ON BOTTOM SIDE OF CROSSTUBE OPPOSITE D2894-1 SUPPORT.
- TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

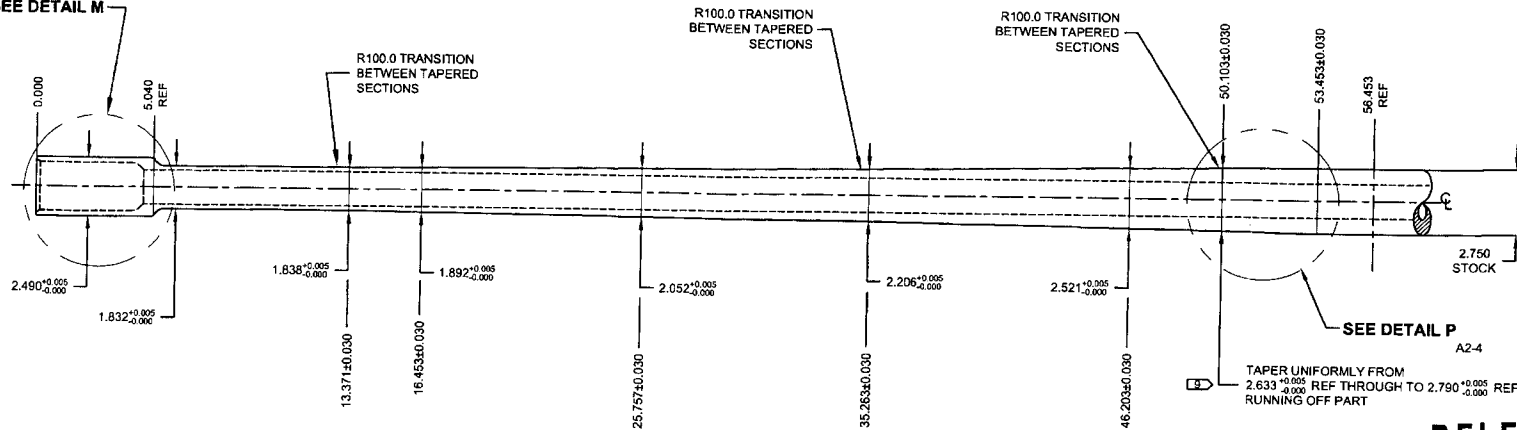
118408 @DEO ATTACHED  
RELEASED 08/11/12

F	REFORMAT NOTES TO NEW STANDARDS (ZN B8-1); RELOCATED FLAG # 6 (ZN AB-3) PER NCR 210; REMOVED REF. & ADD TOLERANCES (ZN C6-3, C4-3 & D2-3)	RF	08.11.06
E	8.02 AND 8.53 WERE 8.40 AND 8.90 (ZN D5-2); REORGANIZED VIEWS AND REFORMATED DRAWING TO CURRENT STANDARDS. REASONS: CLAMPS MOVED 0.375 TOWARD CL TO ELIMINATE INTERFERENCE WITH AIRCRAFT MOUNTS. REFERENCE: FAR#08-21 AND ECN#1225	MB	08.07.24
D	ADD VIEW FOR OEM SKID HOLES, ROTATE ORIENTATION OF CLAMPS SECTION F-F, REMOVE -851 ABRASION STRIP, ADD MAGNOBOND 6398, ADD CUSHION	PH	07.02.07
C	ADD HOLES AND NUT PLATES FOR COMPATIBILITY WITH BHT/AA SKIDTUBES	PH	05.07.26
B	ADD CHAFING SHIELD	CP	03.05.21
A	NEW ISSUE	CP	02.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO. D407-667-245	REV. F SHEET 1 OF 4
CHECKED	RF	TITLE CROSSTUBE ASS'Y (407 HIGH AFT)	SCALE NTS
MFG. APPR.	RF	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
APPROVED	RF	DATE 08.11.06	
DE APPR.	RF		



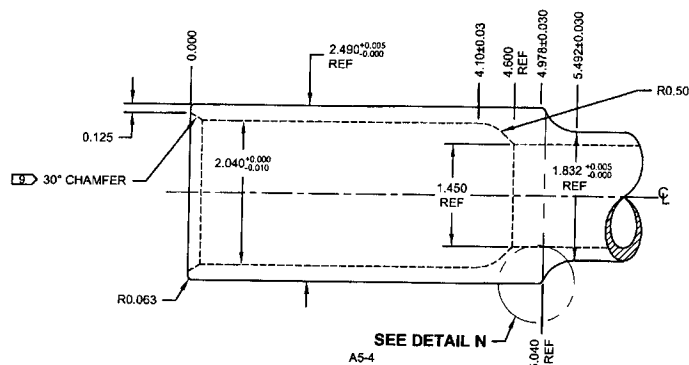


SEE DETAIL M  
A7-4

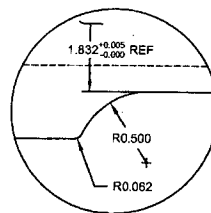


**D407-667-245 MACHINING DETAIL**

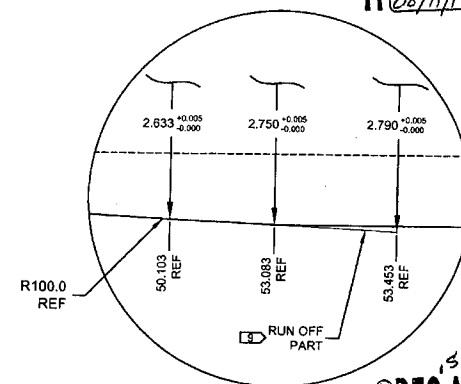
RELEASED  
08/11/12



D8-4 **DETAIL M: CROSSTUBE CUFF**  
SCALE 3X



B6-4 **DETAIL N: CUFF TRANSITION**  
SCALE 2X



C1-4 **DETAIL P: TAPER RUN-OFF**  
NOT TO SCALE

DEO'S ATTACHED

DESIGN	90	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. F
MFG. APPR.	RF	D407-667-245	SHEET 4 OF 4
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	CROSSTUBE ASS'Y (407 HIGH AFT)	NTS
DATE	08.11.06	COPYRIGHT © 2002 BY DART AEROSPACE LTD	
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DRAWING NO. D407-667-245	TITLE CROSSTUBE ASSY (407 HIGH AFT)	REV. F	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D407-667-245-F-1	SHEET NO. SHEET 1 OF 2	SCALE NTS
DRAWN <i>[Signature]</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 11.04.08	DATE 11.04.12	DATE 11.04.12	DATE 11.04.12		DATE 11.04.12		

**PURPOSE:**

REMOVED ABRASION STRIP IN FAVOR OF A THIN LAYER OF PROSEAL 890.

**CHANGE:**

PARTS LIST IS AMENDED AS FOLLOWS:

**IS:**

Item	Qty -245	Part Number	Description
3	0	D2856-400-773	ABRASION STRIP

**WAS:**

3	2	D2856-400-773	ABRASION STRIP
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NOTES 2 AND 15, SHEET 1 ARE AMENDED AS FOLLOWS:

**IS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND  
PAINT OUTSIDE PER DART QSI 005 4.2  
REMOVE MASKING AND APPLY CLEAR COAT
- 15) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3190-1  
CHAFING SHIELDS AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL  
PROSEALED D3190-1 CHAFING SHIELDS ONTO CROSSTUBE BY APPLYING A THIN COAT  
OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.

**WAS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 15) INSTALL D2856-400-773 ABRASION STRIP WITH A 0.13 REF GAP ON BOTTOM SIDE OF  
CROSSTUBE PER QSI 035.

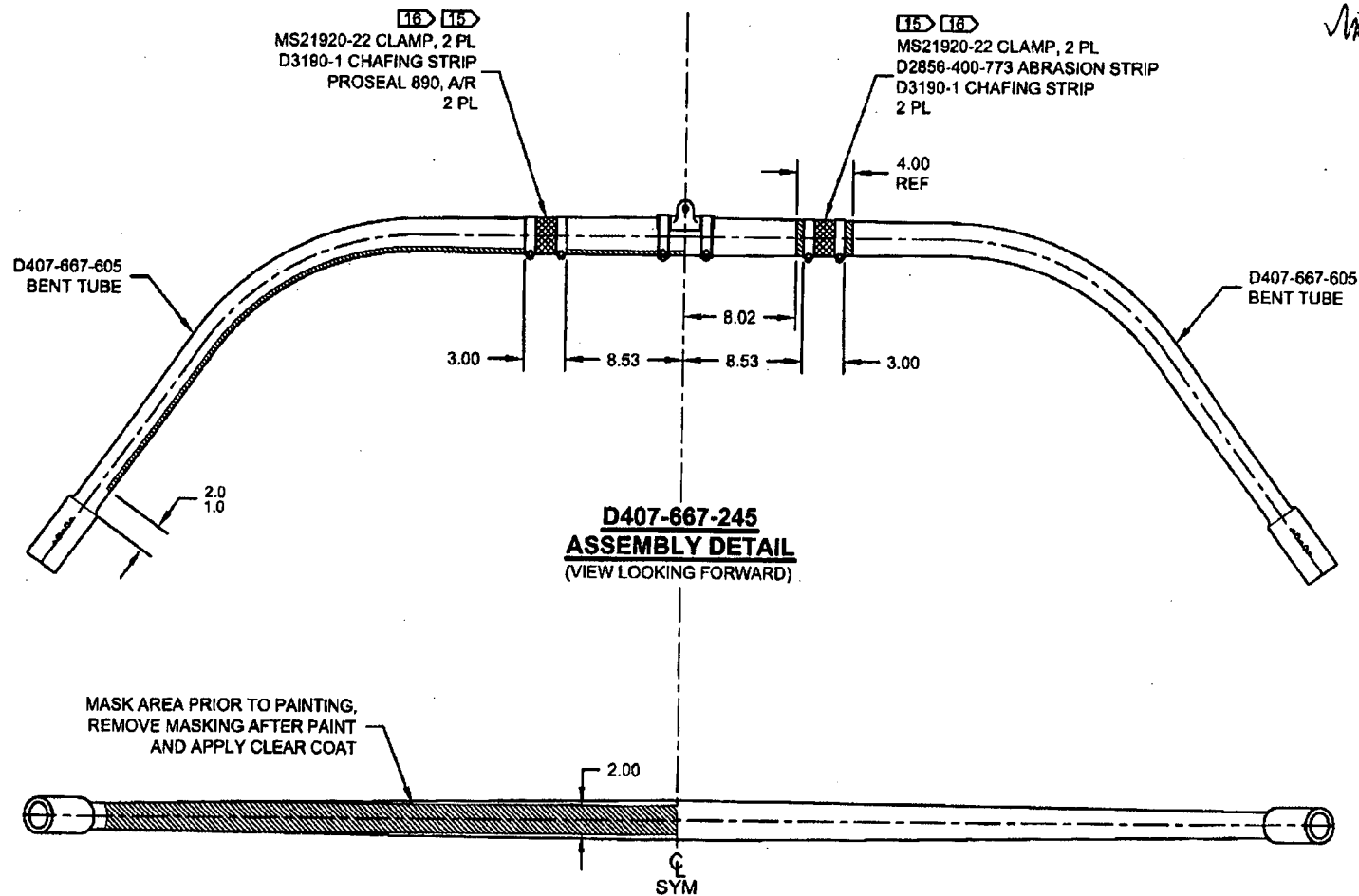
**RELEASED**  
2011-04-18  
*[Signature]*

DRAWING NO. D407-667-245	TITLE CROSSTUBE ASSY (407 HIGH AFT)	REV. F	DART AEROSPACE LTD ENGINEERING ORDER	D.E.O. NO. D407-667-245-F-1	SHEET NO. SHEET 2 OF 2	SCALE NTS
DRAWN	CHECKED <i>UP</i>	MFG. APPR. <i>RE</i>	APPROVED <i>WP</i>	DE APPR. <i>TH</i>		
DATE 11.04.08	DATE 11.04.11	DATE 11.04.12	DATE 11/04/12	DATE 11.04.12		

IS:

WAS:

**RELEASE**  
2011-04-18



DRAWING NO. D407-667-245	TITLE CROSSTUBE ASS'Y (407 HIGH AFT)	REV. F	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D407-667-245-F-2	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN 92	CHECKED ASS	MFG. APPR. E	APPROVED MP		DE APPR. th		
DATE 11.09.07	DATE 11.09.19	DATE 11.09.19	DATE 11.09.19		DATE 11.09.19		

**PURPOSE:**

REPLACE MAGNOBOND WITH 3M DP460 SCOTCH-WELD EPOXY ADHESIVE

**CHANGE:**

IS:

Item	Qty -245	Part Number	Description
12	A/R	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD

WAS:

12	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
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NOTE 12 & 17, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

WAS:

- 12) INSTALL D2894-1 CENTER SUPPORT USING A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

**RELEASED**  
2011-09-29  
MP

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## Linda Lacelle

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**From:** Eric Downing  
**Sent:** October-14-14 2:23 PM  
**To:** Marc Bellavance; Linda Lacelle; Mario Poulin  
**Cc:** Patrick Smith; Sian Willems; Nigel Forbes  
**Subject:** RE: N595RL Aft xtube

118408

After inspecting all stock and wip tis was found  
B116464 needs to be reworked (stock)  
B124537 needs to be reworked (wip)  
B124539 needs to be reworked (wip)

B116465 return to stock part is per drawing (stock)  
B116462 return to stock part is per drawing (stock)  
B124538 package part. (wip)

Linda please create work orders to pull B116464 from stock to rework the others I will attach an NCR to the work orders.

Thanks

With Kind Regards

Eric Downing

QA Coordinator

T: 1-613-632-5200 ext 223

C: 1-613-363-9375

F: 1-613-632-5246

[www.dartaero.com](http://www.dartaero.com)

[Edowning@Dartaero.com](mailto:Edowning@Dartaero.com)



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**From:** Marc Bellavance  
**Sent:** Tuesday, October 14, 2014 11:55 AM  
**To:** Eric Downing  
**Cc:** Patrick Smith; Sian Willems; Harvey Siemens; Tad Kling; Rick Golob; Craig Isak  
**Subject:** RE: N595RL Aft xtube

All,

Just to quick update to keep everyone on the same page.

EricD proceeded to inspection of crosstubes we have in Hawkesbury stock: qty(1) was not to drawing and will be reworked.

Awaiting inspection results from Craig.

**Marc Bellavance**

*Mechanical Designer / Technical Support*

**DART AEROSPACE**

T 1 613 632 5200 > 243

M 1 613 676 0992

F 1 613 632 9311

S marcbellavance

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Technical Publications: Verify Revision Status/Download [HERE!](#)

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**From:** Marc Bellavance

**Sent:** October-14-14 10:41 AM

**To:** Eric Downing

**Cc:** Patrick Smith; Sian Willems; Harvey Siemens

**Subject:** FW: N595RL Aft xtube

**Importance:** High

Hey Eric,

Can you please do the same exercise here ASAP?

Marc

---

**From:** Marc Bellavance

**Sent:** October-14-14 10:32 AM

**To:** Craig Isak  
**Cc:** Tad Kling; Rick Golob; Sian Willems; Harvey Siemens; Peggy McDonald  
**Subject:** FW: N595RL Aft xtube  
**Importance:** High

Hi Craig,

Please see attached photos we got from RLC. They are reporting issues with the position of the off-center supports on their D406-667-205 crosstube. As shown in attached photos, the supports are installed too far inboard: should be installed at 8.53" from center line while they are at 8.43"... This results in interference issue with the OEM clamps/supports.

Our system indicates that you have qty(6) D406-667-205 Crosstubes in inventory. Can you please pull them out of stock and verify that the supports are installed correctly? The supports should be located as indicated on attached drawing D407-667-245-F-1.pdf.

Let me know what are your findings as we may have to replace the one RLC are trying to install.

We need this done ASAP. We plan on getting back to RLC with a solution by 2 PM today. Don't hesitate to call me if you have questions.

Regards,

**Marc Bellavance**

*Mechanical Designer / Technical Support*

**DART AEROSPACE**

T 1 613 632 5200 > 243

M 1 613 676 0992

F 1 613 632 9311

S marcbellavance

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Technical Publications: Verify Revision Status/Download [HERE!](#)

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**From:** Peggy McDonald  
**Sent:** October-13-14 7:47 PM  
**To:** Sian Willems; Marc Bellavance  
**Cc:** David Shepherd  
**Subject:** Fwd: N595RL Aft xtube

I would like to discuss tuesday am and gave a solution for rlc by end of day, if possible.

Sent from my iPhone

Begin forwarded message:

**From:** "Gilley, John" <[jgilley@rlcllc.net](mailto:jgilley@rlcllc.net)>  
**Date:** October 13, 2014 at 7:40:24 PM EDT  
**To:** Peggy McDonald <[pmcdonald@dartaero.com](mailto:pmcdonald@dartaero.com)>  
**Cc:** Rick Golob <[rgolob@dartaero.com](mailto:rgolob@dartaero.com)>  
**Subject:** Fwd: N595RL Aft xtube

Peggy

We need to get some resolution to this and for any new xtubes we get in the future. Apparently the support pads are misplaced and cause the rubber to wear away. See explanation below. Maybe your engineers can tell us what we are doing wrong or can propose a fix?

Thanks,

John Gilley  
Vice President  
RLC, LLC  
(337) 552-7831 Cell  
(337) 837-6038 Ext 1089 Office  
Email: [jgilley@rlcllc.net](mailto:jgilley@rlcllc.net)

Sent from my iPhone

Begin forwarded message:

**From:** "Maintenance, Fieldbasesupervisor" <[fbs@rlcllc.net](mailto:fbs@rlcllc.net)>  
**Date:** October 13, 2014, 6:30:03 PM CDT  
**To:** "Boutte, Ben" <[bboutte@rlcllc.net](mailto:bboutte@rlcllc.net)>, "Gueringer, James" <[jgueringer@rlcllc.net](mailto:jgueringer@rlcllc.net)>, "Bagwell, Lance" <[lbagwell@rlcllc.net](mailto:lbagwell@rlcllc.net)>, "Gilley, John" <[jgilley@rlcllc.net](mailto:jgilley@rlcllc.net)>  
**Subject:** FW: N595RL Aft xtube

Need to let Dart know about this. The support assy being off are not damaging anything, but are rubbing on the rubber in the saddles. They can send us another cross tube or we can remove the tube again to reposition the supports.

---

**From:** Maintenance, Creole

**Sent:** Monday, October 13, 2014 6:13 PM

**To:** Maintenance, Fieldbasesupervisor

**Subject:** N595RL Aft xtube

During installation of the new aft cross tube, we noticed that the both support assy (p/n 400-052-015-101) were resting on the outboard edge of the chafing shield of the aft cross tube (photo # 101\_0331 thru 0333 L/H, 101\_0334 thru 0336 R/H).

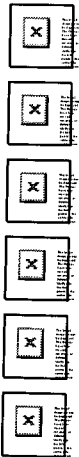
The beam assy (p/n 400-052-007-123) sits correctly in the aft fuselage fittings (p/n 407-030-112-105).

We measured from the center of the beam pivot bolt to the inboard edge of chafing shield (photo # 101\_0337 thru 0339) = approx 215mm or 8 7/16 inches. Dart ICA-D206-667 fig 32-9 gives measurement of 226mm or 8.9 inches.

On the aft cross tube we removed, it too shows that the chafing shields are installed incorrectly (the shiny area on the shield is where the rubber on the support contacts the chafing shield) (photo # 101\_0340 L/H & 0341 R/H).

Thanks

Paul H.





# Work Order ID 118408

October-14-14 3:02:04 PM

\*118408\*

Page 1

Item ID: D407-667-205

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Aft Crosstube - High 407

Start Date: 10/14/14 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 10/14/14 Req'd Qty: 1.00

\*1\*

Customer:

Reference: NCR - RLC

Approvals: Process Plan: U

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

<b>DART</b> AEROSPACE		1270 ABERDEEN ST. HAWKESBURY, ON CANADA K6A 1K7 TEL: 1-613-632-5200 www.dartaerospace.com	
PATENT	N/A	CHG	CHG008
P/N	D407-667-205	STC	SH01-5
DESC	Crosstube Aft High	STC	SR01304NY
LOT	B116464	STC	
MODEL	Rel 107	STC	
TC APPROVAL # 09-89		MADE IN CANADA	
		D2729-4	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D407-667-245

Rev F/DEO

100

Document Control

0.00

\*100\*

DC

Doc.Control -USB or Paperwork

DOCUMENT CONTROL

Memo

Photocopy bluefile and create labels as per PPP D407-667-205 CHG008

Label

MLJ 14-10-20

230

Crosstubes

0.00

\*230\*

Crosstubes

Crosstubes

Memo

PULL FROM STK:

1 X D407-667-205 B116464

REWORK - POSITION OF OFF CENTER SUPPORTS - INSTALL AT 8.53" FROM CENTERLINE

N/A

DAS  
38  
9-89

DAS  
41  
9-89

14-10-20

240

QC5- Inspect part completeness to step on W/O

0.00

\*240\*

QC

Quality Control

Memo

\*\*\*RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURE FOR 24HOURS AS PER DWG DEO\*\*\*

0.00

DAS  
38  
9-89

14-10-20